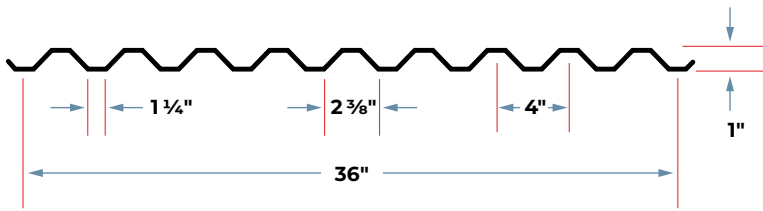


1" FORM DECK

GRADE 80 STEEL



Options

Vented

Section Properties

Gage	Design Thickness (inches)	Weight (psf)	F _y (ksi)	S _e + (inch ³) per foot	S _e - (inch ³) per foot	ASD (Ω = 1.67)		I _d + (inch ⁴) per ft.	I _d - (inch ⁴) per ft.
						M _p /Ω (inch-lbs per ft)	M _n /Ω (inch-lbs per foot)		
26	0.0179	0.9	60	0.061	0.065	2199	2329	0.036	0.035
24	0.0239	1.2	60	0.090	0.096	3228	3432	0.049	0.049
22	0.0295	1.5	60	0.120	0.125	4298	4493	0.064	0.062
20	0.0358	1.8	60	0.154	0.153	5521	5509	0.080	0.078

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Shear and Web Crippling

Gage	V _n /Ω (lbs/ft)	Web Crippling (R _n /Ω), lbs/ft One Flange Loading End Bearing			Web Crippling (R _n /Ω), lbs/ft One Flange Loading Interior Bearing		
		1-1/2"	2"	3"	1-1/2"	2"	3"
		26	1759	513	568	661	773
24	2899	857	945	1093	1310	1427	1622
22	3584	1261	1386	1595	1947	2112	2389
20	4339	1785	1955	2242	2781	3006	3384

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Allowable Uniform Downward Loads, ASD (PSF)

Span	Gage	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
Single	26	366	235	163	120	92	72	59	48	41	35	30
	24	538	344	239	176	134	106	86	71	60	51	44
	22	716	458	318	234	179	142	115	95	80	68	58
	20	920	589	409	300	230	182	147	122	102	87	75
Double	26	388	248	173	127	97	77	62	51	43	37	32
	24	572	366	254	187	143	113	92	76	64	54	47
	22	749	479	333	245	187	148	120	99	83	71	61
	20	918	588	408	300	230	181	147	121	102	87	75
Triple	26	485	311	216	158	121	96	78	64	54	46	40
	24	715	458	318	233	179	141	114	95	79	68	58
	22	936	599	416	306	234	185	150	124	104	89	76
	20	1148	735	510	375	287	227	184	152	128	109	94

Allowable Uniform Upward Loads, ASD (PSF)

Span	Gage	2'-0"	2"-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
Single	26	388	248	173	127	97	77	62	51	43	37	32
	24	572	366	254	187	143	113	92	76	64	54	47
	22	749	479	333	245	187	148	120	99	83	71	61
	20	918	588	408	300	230	181	147	121	102	87	75
Double	26	366	235	163	120	92	72	59	48	41	35	30
	24	538	344	239	176	134	106	86	71	60	51	44
	22	716	458	318	234	179	142	115	95	80	68	58
	20	920	589	409	300	230	182	147	122	102	87	75
Triple	26	458	293	204	150	115	90	73	61	51	43	37
	24	672	430	299	220	168	133	108	89	75	64	55
	22	895	573	398	292	224	177	143	118	99	85	73
	20	1150	736	511	376	288	227	184	152	128	109	94

- Notes**
- All section properties and ASD ($\Omega = 1.67$) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
 - Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
 - Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
 - Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

Span	Gage	2'-0"	2"-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
Single	26	289	148	86	54	36	25	19	14	11	8	7
	24	401	205	119	75	50	35	26	19	15	12	9
	22	511	261	151	95	64	45	33	25	19	15	12
	20	638	327	189	119	80	56	41	31	24	19	15
Double	26	696	356	206	130	87	61	45	33	26	20	16
	24	966	495	286	180	121	85	62	46	36	28	23
	22	1229	629	364	229	154	108	79	59	46	36	29
	20	1537	787	455	287	192	135	98	74	57	45	36
Triple	26	545	279	161	102	68	48	35	26	20	16	13
	24	756	387	224	141	94	66	48	36	28	22	18
	22	962	493	285	180	120	84	62	46	36	28	22
	20	1203	616	356	224	150	106	77	58	45	35	28

Note
 For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Maximum Construction and Cantilever Spans

Span	Gage	ASD Span	ASD Cantilever Span
Single	26	3'-8"	1'-0"
	24	5'-5"	1'-5"
	22	7'-2"	1'-10"
	20	9'-2"	2'-3"
Double or Triple	26	4'-6"	
	24	6'-7"	
	22	8'-10"	
	20	11'-4"	

Notes

1. All construction load spans are calculated using a 200 pound service load on a 1 foot width of deck, in accordance with ANSI/SDI RD-2017.
2. All cantilever construction load spans are calculated using a 200 pound service load on a 1 foot width of deck and a 10 psf uniform distributed load, in accordance with ANSI/SDI RD-2017.

Construction Span Table – 20 psf Construction Load

Normal Weight Concrete (145 pcf)				
Total Slab Depth	Deck Type	Maximum Unshored Clear Span		
		1 span	2 span	3 span
2.50 (t=1.50) 25 PSF	1x4x26 ga	3'-9"	4'-5"	4'-6"
	1x4x24 ga	5'-1"	6'-0"	6'-1"
	1x4x22 ga	6'-1"	7'-5"	7'-6"
	1x4x20 ga	6'-7"	8'-11"	9'-0"
3.00 (t=2.00) 31 PSF	1x4x26 ga	3'-7"	4'-3"	4'-4"
	1x4x24 ga	4'-10"	5'-8"	5'-9"
	1x4x22 ga	5'-8"	7'-0"	7'-1"
	1x4x20 ga	6'-1"	8'-4"	8'-5"
3.50 (t=2.50) 37 PSF	1x4x26 ga	3'-5"	4'-1"	4'-2"
	1x4x24 ga	4'-9"	5'-11"	5'-11"
	1x4x22 ga	5'-4"	6'-8"	6'-9"
	1x4x20 ga	5'-9"	7'-10"	8'-0"
4.00 (t=3.00) 43 PSF	1x4x26 ga	3'-4"	3'-11"	4'-0"
	1x4x24 ga	4'-5"	5'-2"	5'-3"
	1x4x22 ga	5'-1"	6'-4"	6'-5"
	1x4x20 ga	5'-6"	7'-6"	7'-7"
4.50 (t=3.50) 48 PSF	1x4x26 ga	3'-3"	3'-10"	3'-10"
	1x4x24 ga	4'-3"	5'-0"	5'-1"
	1x4x22 ga	4'-11"	6'-1"	6'-2"
	1x4x20 ga	5'-3"	7'-3"	7'-4"
5.00 (t=4.00) 54 PSF	1x4x26 ga	3'-2"	3'-8"	3'-9"
	1x4x24 ga	4'-1"	4'-10"	4'-11"
	1x4x22 ga	4'-9"	5'-11"	5'-11"
	1x4x20 ga	5'-1"	6'-11"	7'-0"

Lightweight Concrete (115 pcf)				
Total Slab Depth	Deck Type	Maximum Unshored Clear Span		
		1 span	2 span	3 span
2.50 (t=1.50) 19 PSF	1x4x26 ga	3'-11"	4'-8"	4'-9"
	1x4x24 ga	5'-4"	6'-5"	6'-6"
	1x4x22 ga	6'-8"	8'-0"	8'-1"
	1x4x20 ga	7'-2"	9'-7"	9'-9"
3.00 (t=2.00) 24 PSF	1x4x26 ga	3'-9"	4'-6"	4'-7"
	1x4x24 ga	5'-1"	6'-1"	6'-2"
	1x4x22 ga	6'-2"	7'-6"	7'-7"
	1x4x20 ga	6'-8"	9'-0"	9'-1"
3.50 (t=2.50) 29 PSF	1x4x26 ga	3'-7"	4'-4"	4'-4"
	1x4x24 ga	5'-2"	6'-5"	6'-6"
	1x4x22 ga	5'-10"	7'-1"	7'-3"
	1x4x20 ga	6'-3"	8'-6"	8'-7"
4.00 (t=3.00) 32 PSF	1x4x26 ga	3'-7"	4'-3"	4'-3"
	1x4x24 ga	4'-9"	5'-8"	5'-8"
	1x4x22 ga	5'-7"	6'-11"	7'-0"
	1x4x20 ga	6'-0"	8'-3"	8'-4"
4.50 (t=3.50) 37 PSF	1x4x26 ga	3'-5"	4'-1"	4'-2"
	1x4x24 ga	4'-7"	5'-5"	5'-6"
	1x4x22 ga	5'-4"	6'-8"	6'-9"
	1x4x20 ga	5'-9"	7'-10"	8'-0"
5.00 (t=4.00) 41 PSF	1x4x26 ga	3'-4"	4'-0"	4'-0"
	1x4x24 ga	4'-5"	5'-3"	5'-4"
	1x4x22 ga	5'-2"	6'-5"	6'-6"
	1x4x20 ga	5'-7"	7'-7"	7'-8"

Note

Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.



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